MODIS Technical Team Meeting
Thursday, May 9, 2002
Building 33, Room E108

Vince Salomonson chaired the meeting. Present were Ed Masuoka, Wayne Esaias, Bill Barnes, Jack Xiong, Barbara Conboy, Skip Reber, Steve Kempler, Michael King, Robert Wolfe, Dorothy Hall, Shaida Johnston, Chuck McClain, and Yolanda Harvey, with John Weier taking the minutes.

1.0 Upcoming Meetings

- AGU, Spring, May 28-Jun 1, Washington, D.C.
- AMS, Atmospheric Radiation and Atmospheric Physics, first week of June, Odgen, Utah
- MODIS Outreach Workshop on Land Cover Variables, June 3-4, University of Maryland, College Park
- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, July 22-24, 2002, Greenbelt Marriott
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstract deadline past)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

2.1 General Discussion

Salomonson reported that there have been inquiries wherein people wanted to know what was going to be done with the Aqua data that is first released. Salomonson said he believed everything initially was going into collection 199. Esaias said that he thought the idea was to put everything in "collection 3" and examine it in data mode. Then when it is ready to go, the data that was or should be kept from the public would go into collection 199 and release everything else in "collection 3" to the public. There was some more extended discussion indicating that some way or other the data from Aqua MODIS would be analyzed and carefully and appropriately released to the public and scientific community. This procedure would most likely use the collection 199 approach at least for "beta" products, but further refinement of the approach will be developed and made known to the Science Team.

2.2 Data Processing Update

Salomonson reported that Steve Kempler is ready to announce that the DAAC has all MODIS 1B, geolocation and sub-sampler data up through 2001 ready. Also, there are plans to put together an announcement page and send it out via e-mail to all the people who are likely to use the data. He added that they should announce it in some other broader way such as in an email to the IWG or as an article in the Earth Observer. The DAAC people should talk to Charlotte Griner about when the next issue of the Earth Observer is coming out.

Salomonson reported that MODAPS and the DAAC have updated their capabilities and Diane Wickland and Martha Maiden should be informed. There was an open action to have this done. Masuoka said that they have done the tests that show a capability to produce MODIS products at a rate of two days of products per day (2X) on the forward processing system, mtvs1. He said that demonstrating 2X production (in this test) laid to rest a concern that MODAPS would not be able to handle both Aqua and Terra forward processing. Esaias said that MODAPS and the DAACS have demonstrated between 6X and 8X in Ocean reprocessing tests with Terra data.

Kempler reported they are almost done with collection 3 data up through 2000. By the end of the month they should have all of 2000. They had 289 unique users in April. One hundred seven of them were new

users. Altogether, they had 2,500 requests from those users. The DAAC was able to fill almost all of them. Two hundred and fifty failed, but they were mostly with one person. Salomonson asked if all the Safari data will have been processed, and Kempler said yes.

Kempler reported that they are almost maxing out on their total capacity in the data pull. They've set up two lines to clear it where one line is push and one is pull. Using media – 8 mm, CD and DVD -- is still a viable solution to freeing up space in the media pool. The data pool should be fully operational by the end of May, probably May 28. They'll be up to 50 terabytes by the end of the summer, so that is what we're looking at. They're going through plans of how to use 50 terabytes, and we may change our decision when we see what demand is. They're allowing 60 days for level 1 data and that should take up 2/3 of the data pool or 36 terabytes. So we'll probably scale it back by a week and we'll fill in and drop out another.

Kempler reported that they've got some new processors and we have a matrix assigned to the AIRS and MODIS so that the two will not be in conflict. They've got processors assigned to both instruments. All teams will be notified when we are done.

Kempler asked Hall how the data retrieval process had been going for her over the past couple of weeks. She replied that the data flow has been very good as of late at both the Goddard DAAC and the NSIDC DAAC. She said she recently had everything she requested within an hour of making a request and said that over the past months it has been getting better and better.

Masuoka reported that they conducted a trial to test the rate at which the Goddard DAAC could deliver Ocean products to MODAPS. The sustained distribution rate during the test was around 5.4X for the test. In the future, Masuoka believes that as they shift more resources to pushing the Level 1 data, the DAAC should be able to reach a steady rate of 7X required to finish the Ocean reprocessing on schedule. Kempler said system problems were a reality, so the DAAC will be shooting for a minimum rate of 7.5X to allow for system downtime. A new test will be undertaken next week to see if the deliver rate of 7.5X can be sustained.

King reported that the atmospheric profiles code has been updated and integrated into production and it appears as if the new validated version has fixed all of the anomalously large water vapor values over the Sahara Desert**.**

Hall reported that things are looking good with regards to the snow and sea ice products, and that she thinks they will be validated before the team meeting in July. As to the CD, Eric Vermote's team is still working on the cloud masking of the monthly snow product.

McClain reported that they are working on blending the MODIS and SeaWIFS data.

King said he's been working on two papers on MODIS atmosphere and cloud products for IEEE special issues that have been submitted. A third paper is by Gao, who is submitting it tomorrow.

2.3 Instrument Update
Barnes reported that they loaded the patches for Terra on the satellite yesterday and the instrument is running well.

As to the MODIS instrument aboard Aqua, Barnes reported that everything seems to be on schedule. The electronics, processors and survival heaters are running. The doors are unlatched and closed. The instrument should go into science mode on June 7 and they should acquire thermal data from the inside of the door. First light will be on June 17. Barnes asked if it would be worthwhile to send the science team an update on the instruments. Salomonson said that it would seem unnecessary since the information will be in the tech team minutes.

Johnson reported that she has an updated schedule for the MODIS instrument aboard Aqua and that this should be brought to everyone's attention.

Barnes reported there is a problem with the star trackers on Aqua. There is a 0.15-degree difference between the two star trackers. No one knows which one is in error. MODIS will be used to tell which one is correct. He suggested that they patch the s/w once they discover which one is off. Wolfe remarked that when the doors open they should send back what MODIS sees to him. If the image data looks good and there is a decent flow of data, it will probably be two weeks to resolve the problem.

Johnson said they are upgrading the master schedule so that its' reflecting Aqua launch. We are ready for oceans reprocessing and a little bit more uncertain about October start-up.

King wanted to know what was to be done with dead detectors (e.g., band 6) on Aqua. Xiong said that if you have four detectors and 1 out of four 500-meter detectors is alive then it will be used to provide what will be considered a one-kilometer observation. This approach has been used on Terra, which has two detectors that are out and are being brought up to the next resolution; i.e., 1 kilometer.

2.4 Data Line Update

Barnes reported to Masuoka that the Center wants to turn off the network connection to GSFC from Forbes Blvd. Right now Barnes said that SSAI has an approved line. He is trying to get a waiver to set up a point-to-point line with SSAI. Masuoka said the T3 network connection to MCST for data transfer from the GES DAAC is not going to be turned off. Masuoka said that he is getting the GSC FNS 4Mbps network connection a waiver so that it will not be turned off. However, e-mail and web browsing could not be done through this government-provided line. Contractors off-site have to set those services up themselves and cannot have a NASA address.

2.5 Concluding Discussion

Salomonson said they are going to try to make the science meeting this year even more open than it has been in the past. McClain said one purpose is to better describe the MODIS Ocean color products and get people up to speed as to their true characteristics and capability. Conboy said that the meeting would be held at the Greenbelt Marriott in Greenbelt, Maryland. Salomonson said that for the meeting the first priority will be to get assessments of the Aqua MODIS performance as reflected in early products. The second, but still very important, priority will be to get an assessment of progress and schedule in completing the validation of Terra MODIS products.

3.0 Action Items

3.1 The procedure for releasing Aqua MODIS products needs to be further refined via Discipline discussions and coordination with the Science Team leader, et al.
Status: Open.

3.2 Technical team to discuss further issue of predicted ephemeris data and how to improve it.
Status: Open.

3.3 Diane Wickland and Martha Maiden should be informed that MODAPS and the DAAC have updated their capabilities.
Status: Open